

Draft Technical Memorandum

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OHM Remediation
Services Corp.

Date: August 15, 1997 Project No. 18609
DCN SW4089

To: Lynn Hornecker, 56MC.LH

From: Jay Neuhaus, PM Delivery Order 70

Subject: Catch Basin Clean-out West of IRP Site 21-Materials Management Group,
Building 320, MCAS El Toro

This memo describes the removal of contents from a catch basin located west of IRP Site 21. In a memorandum dated April 28, 1997, the Navy requested that OHM remove and dispose of sediment from a catch basin located near IRP Site 21, and decontaminate the catch basin as necessary. The cleaning operation was discussed during a BRAC Cleanup Team meeting on February 06, 1997. OHM's services were provided under Southwestern Division, Naval Facilities Engineering Command Contract (SWDIV) No. N68711-93-D-1459, Delivery Order (DO) 0070.

On May 21, 1996, OHM Remediation Services, in the presence of the Resident Officer in Charge of Construction (ROICC), executed the catch basin clean-out. To access the debris in the catch basin, the grate was loosened with a back hoe and manually lifted. The debris, consisting primarily of twigs, leaves, and small gravels was removed. An insignificant amount of fine, dusty material was swept out with a wet/ dry vacuum. According to the field chemist, the volume of sediment was not sufficient to allow for laboratory testing and consequently, no chemical analyses were performed. The material was placed in a fifty-five gallon drum and staged at the Central Treatment Facility prior to disposal. Upon completion of cleaning the catch basin, the grate was replaced, and the site was restored to its original condition.

Since the material in the 55-gallon drum consisted of twig and leaf debris, gravels, and nominal sediment, it was classified as Class III material (no staining or odor was present), and the debris from the catch basin was disposed of by placing it in a dumpster at the Central Treatment Facility.

Previous Investigations

Previous investigations have been conducted at Site 21 (adjacent to the catch basin) starting in the early 1990's through 1996, by Jacobs Engineering Group (JEG), Bechtel National Inc. (Bechtel), the United States Environmental Protection Agency (USEPA), and Science Applications International Corp. (SAIC). These investigations included aerial photograph surveys, interviews, and soil and groundwater investigations. Site 21 was investigated as part of the remedial investigation (RI) at the Marine Corps Air Station (MCAS) El Toro (JEG, 1993; Bechtel, 1997).

Information from the Bechtel (1997) and the JEG (1993) reports was used in this memorandum to provide a brief site background. Refer to the RI reports for further information on previous work completed at Site 21.

Site Background

IRP Site 21, at Building 320 (see Attachment 1, Figure 1-Site Aerial Photograph), is located in the southwest quadrant of MCAS El Toro. Site 21 was part of the supply distribution center for MCAS El Toro and other Marine facilities and was used for the storage of drummed materials since approximately the year 1946. Since 1995 all drummed materials stored at the site were removed. The site was used to store drums of chemicals and to temporarily store drums of chemicals with expired shelf lives. No leaks or spills have been documented at the site; however, contaminants may have leaked from the drums during operations of the storage area. It has been reported that in 1964 there were approximately 1,000 drums stored on the site, and by 1986, there were approximately 100 to 125 drums. The site is currently vacant and no chemicals are stored on the site. The site is fenced and locked at all times.

The site was a former chemical storage area on the northwest side of Building 320, which housed the Materials Management Group (see Attachment 2, Figure 2-Topographic Map). The one-third acre site consisting of a single unit (for RI purposes) is an unpaved, fenced, enclosure covered by hand-packed dirt and gravel, with small areas of patchy concrete. In the western corner of the site is a 20- by 25-foot concrete pad (bermed and covered), used for storage of hazardous chemicals. A concrete-lined catch basin, which receives surface water runoff from the east and southeast, is located just outside the fence near the western corner of the site (see Attachment 2). The material in the wash runs down a storm drain that ends up in the Bee Canyon Wash. The catch basin may also receive runoff from off-site (JEG, 1993). The site boundaries were established by the Navy and regulatory agencies prior to the initiation of the Phase I RI.

As part of the Phase I RI (JEG, 1993) one sediment sample, 21_CB, was collected from the catch basin. Analytes reported in the catch basin sediment sample included VOCs, SVOCs and PAHs, pesticides, petroleum, hydrocarbons, and TAL metals at concentrations above background. Analytical data reported from the catch basin sediment sample were also detected in shallow soil samples collected at Site 21. The attached table (Attachment 3, Table 4-5, Catch Basin Phase I Sediment Data Summary) from the Phase II RI Report summarizes the analytical results from the surface sample taken during Phase I, at the catch basin. No sediment samples were taken from the catch basin as part of the Phase II work.

The *Draft Final Phase II RI Report OU-3A Sites, MCAS El Toro*, (Bechtel 1997) concluded that the above background levels of metals, and PAH and PCB levels, may pose an unacceptable risk to potential on-site residents or on-site industrial workers based upon the reported ranges and calculated risks. Therefore OHM was tasked with removing the contents from the catch basin as a maintenance measure. As presented above, OHM removed the contents of the catch basin and

found, at the time of the clean-out, not enough sediment was present to submit a sample for laboratory analysis for metals, PAHs, and PCBs. It is likely that the catch basin received substantial runoff during the interval from the early 1990's (when 21_CB was taken) until mid-1997; and the basin continues to receive runoff from surrounding areas. During this time interval some rainy seasons have been unusually heavy and the soils present during the early 1990's were no longer present during the maintenance activity of 1997.

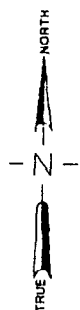
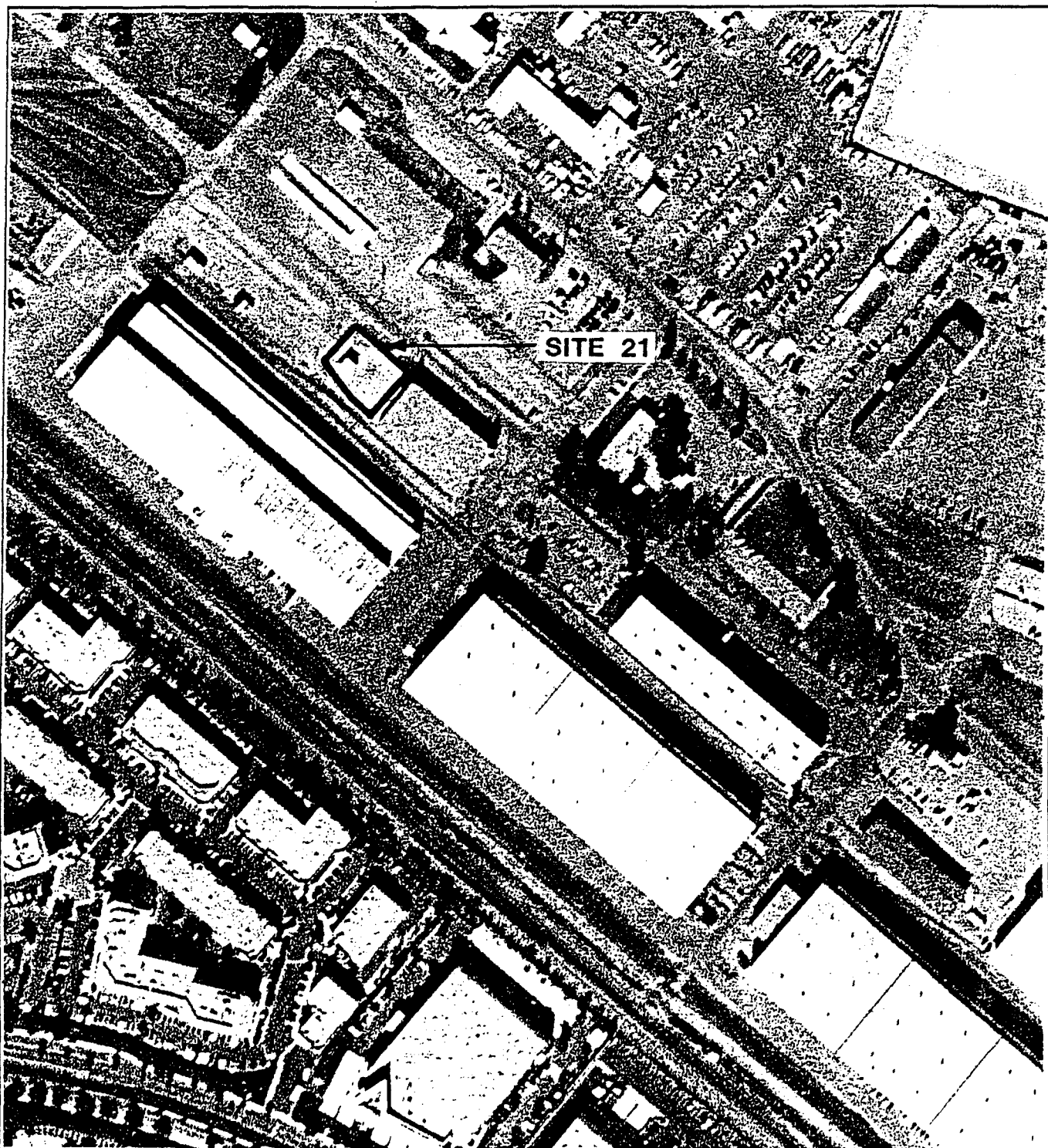
Attachments

- 1) *Figure 1 - Site Aerial Photograph (1/12/96) Site 21-Materials Management Group, Building 320 , from OU-3A Remedial Investigation Report (1997)*
- 2) *Figure 2 - Topographic Map Site 21-Materials Management Group, Building 320, from OU-3A Remedial Investigation Report (1997)*
- 3) *Table 4-5 Catch Basin Phase I Sediment Data Summary, from the Draft Final Report OU-3A, MCAS El Toro (1997)*
- 4) *BCT Meeting Minutes, Dated 06 February 1997, Bechtel, CTO # 0079, 12 February 1997*

References

Bechtel National Inc. 1997. *Draft Final Phase II Remedial Investigation Report OU-3A Sites Marine Corps Air Station, El Toro, California Vol. III, Attachment M.* SWDIV Contract No. N68711-92-F-4670. March.

Jacobs Engineering Group. 1993. *Marine Corps Air Station El Toro: Installation Restoration Program Phase I Remedial Investigation Draft Technical Memorandum, Vols. I-IV.*



SOURCE: AERIAL PHOTOBANK INC.
SAN DIEGO, CALIFORNIA
DATE: 1/12/96

OU-3A Remedial Investigation Report
Figure 1

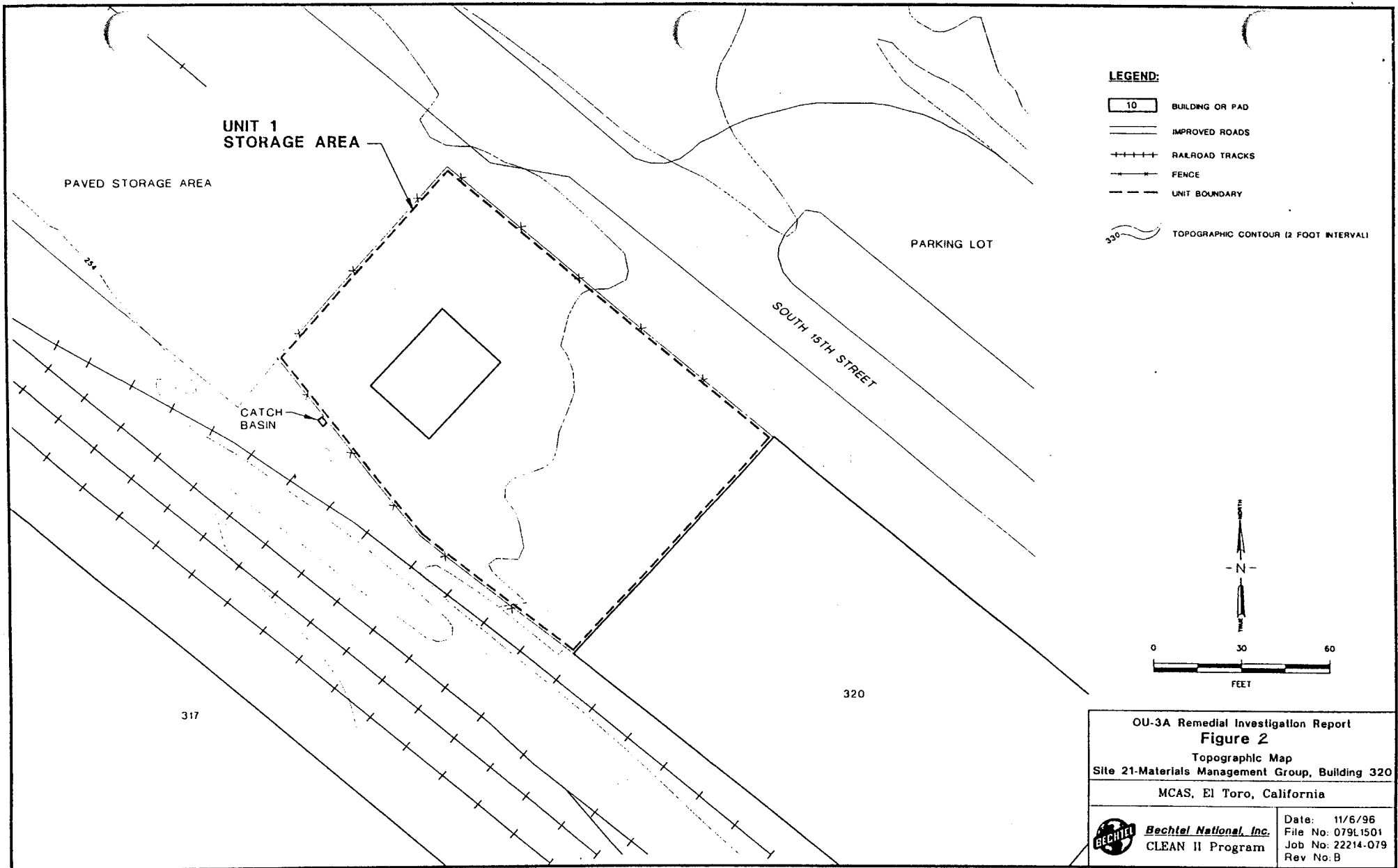
Site Aerial Photograph (1/12/96)
Site 21-Materials Management Group, Building 320

MCAS, El Toro, California



Bechtel National, Inc.
CLEAN II Program

Date: 11/5/96
File No:
Job No: 22214-079
Rev No: A



ATTACHMENT 3

CLEAN II
CTO-0079/0364
Date: 03/20/97

Section 4 Nature and Extent of Contamination

Table 4-5
Catch Basin Phase I Sediment Data Summary

| SAMPLE LOCATIONS/SAMPLE DEPTH (feet bgs ^a) | | |
|--|--------------------|--------------------|
| Analyte Name/Method Code | Result Units | 21_CB 0 |
| VOC^b (U.S. EPA^c CLP^d OLM^e 01.5) | | |
| Acetone | µg/kg ^f | 460*** |
| Methylene chloride | µg/kg | 380** ^h |
| Toluene | µg/kg | 27 J ⁱ |
| TPH^j (U.S. EPA 418.1) | | |
| TRPH ^k | mg/kg ^l | 160 |
| TPH (CA LUFT/SW)^m | | |
| Diesel | µg/kg | 192,000 |
| Gasoline | µg/kg | 168 |
| SVOCⁿ/U.S. EPA CLP OLM 01.5 | | |
| Benzyl butyl phthalate | µg/kg | 180 J |
| bis(2-ethylhexyl)phthalate | µg/kg | 1,300* |
| Carbazole | µg/kg | 2,800 |
| Dibenzofuran | µg/kg | 490 J |
| PAH^o/U.S. EPA CLP OLM 01.5 | | |
| 2-methylnaphthalene | µg/kg | 150 J |
| Acenaphthene | µg/kg | 1,200 |
| Acenaphthylene | µg/kg | 170 J |
| Anthracene | µg/kg | 1,900 |
| Benz(a)anthracene | µg/kg | 1,800 |
| Benzo(a)pyrene | µg/kg | 2,000 |
| Benzo(b)fluoranthene | µg/kg | 2,100 |
| Benzo(g,h,i)perylene | µg/kg | 670 J |
| Benzo(k)fluoranthene | µg/kg | 2,000 |
| Chrysene | µg/kg | 3,100 |
| Dibenz(a,h)anthracene | µg/kg | 570 J |
| Fluoranthene | µg/kg | 10,000 |
| Fluorene | µg/kg | 1,300 |
| Indeno(1,2,3-c,d)pyrene | µg/kg | 1,100 |
| Phenanthrene | µg/kg | 14,000 |
| Pyrene | µg/kg | 6,200 |

(table continues)

Section 4 Nature and Extent of Contamination

Table 4-5 (continued)

| SAMPLE LOCATIONS/SAMPLE DEPTH (feet bgs ³) | | |
|--|-----------------|---------------------|
| Analyte Name/Method Code | Result Units | 21_CB 0 |
| Pesticides/U.S. EPA CLP OLM 01.5 | | |
| 4,4'-DDD ^p | µg/kg | 109 d ^q |
| 4,4'-DDE ^r | µg/kg | 109 d |
| 4,4'-DDT ^s | µg/kg | 557 d |
| alpha-chlordane | µg/kg | 5.97 |
| Dieldrin | µg/kg | 10.6 |
| Endosulfan II | µg/kg | 8.27 |
| Endosulfan sulfate | µg/kg | 10.8 |
| Endrin | µg/kg | 22.3 |
| Endrin ketone | µg/kg | 4.87 |
| gamma-chlordane | µg/kg | 7.75 |
| Methoxychlor | µg/kg | 6.31* |
| Metals/U.S. EPA 200.7/S, 206.2/S, 239.2/S, 279.2/S, SW7471 | | |
| Aluminum (14,800) ^t | mg/kg | 16,800 |
| Arsenic (6.86) | mg/kg | 9.9 |
| Barium (173) | mg/kg | 227 |
| Cadmium (2.35) | mg/kg | 4.1 |
| Chromium (26.9) | mg/kg | 29.1 |
| Cobalt (6.98) | mg/kg | 11.5 |
| Copper (10.5) | mg/kg | 41.4 |
| Lead (15.1) | mg/kg | 171 |
| Manganese (291) | mg/kg | 468 |
| Mercury (0.22) | mg/kg | 0.95 |
| Nickel (15.3) | mg/kg | 20.4 |
| Selenium (0.32) | mg/kg | 0.17 b ^u |
| Thallium (0.42) | mg/kg | 0.19 b |
| Vanadium (71.8) | mg/kg | 54.2 |
| Zinc (77.9) | mg/kg | 507 |

Notes:

- ^a bgs – below ground surface
- ^b VOC – volatile organic compound
- ^c U.S. EPA – United States Environmental Protection Agency
- ^d CLP – (U.S. EPA) Contract Laboratory Program
- ^e OLM – organic laboratory method
- ^f µg/kg – micrograms per kilogram
- ^g ** – compound is observed in field blanks at the same order of magnitude
- ^h * – reported sample value is 5 to 10 times greater than that observed in the field blanks

(table continues)

Section 4 Nature and Extent of Contamination

Table 4-5 (continued)

- i J – estimated value
- j TPH – total petroleum hydrocarbons
- k TRPH – total recoverable petroleum hydrocarbons
- l mg/kg – milligrams per kilogram
- m CA LUFT/SW – California Leaking Underground Fuel Tank/Solid Waste
- n SVOC – semivolatile organic compound
- o PAH – polynuclear aromatic hydrocarbons
- p DDD – dichlorodiphenyldichloroethane
- q d – reported value is from a dilute analysis
- r DDE – dichlorodiphenyldichloroethene
- s DDT – dichlorodiphenyltrichloroethane
- t values in parentheses are background concentrations for metals at Marine Corps Air Station El Toro (see Appendix D)
- u b – reported value is less than the contract-required detection limit but greater than or equal to the instrument detection limit

Chron No.: CTO-0079/0358**BCT MEETING MINUTES**

| | |
|---|--|
| Meeting Subject: Weekly BCT Meeting, MCAS El Toro | Meeting Date: Thursday, 06 February 1997 Meeting Time: 10:00 am Meeting Place: ROICC Conference Room, Building T-2006 MCAS El Toro Meeting Notes Prepared By: John Scholfield |
| Attendees: An attendance list is attached. | |

AGENDA AND HANDOUTS

The agenda for the meeting and the Preliminary Responses to EPA Comments on the OU-3A RI Report that were faxed to the attendees prior to the meeting are attached. The following handouts, provided at the meeting, are also attached: Norton AFB--Document Review Summary as of December 4, 1996 and Summary Information Norton Environmental Restoration, December 4, 1996.

OU-3A DRAFT RI REPORT- RESOLUTION OF COMMENTS

Craig began by going over the Preliminary Responses to EPA Comments. Both Jeff Paull and John Christopher said that the report was excellent and well written and that it sets the standard for this type of document. John expressed some concern that the current risk evaluations may not satisfactorily cover construction worker risk. The construction worker is based on a much higher dose but only for a 1 year period. He suggested that we revise risk sections to include reference to this scenario and indicate that the risk represents approximately "x"% of the residential risk values. The next comment addressed was the EPA comment from Jeff, "The cumulative hazard indices exceeded 1 at almost all of the sites..." including most of the sites recommended for No Further Action. Jeff and John both requested that the rationale for No Further Action at the sites where the areas of concern (AOCs) exceeded a hazard index (HI) of 1.0 be strengthened in the document.

- At issue was whether HI values of 1.4 or less required any action, particularly when manganese was the primary risk driver. Andrea indicated that when manganese is eliminated, none of the AOCs had HI's greater than 1. John Christopher agreed that even for the systemic toxicity results, manganese was the main driver and was always less than 1 by itself. Jeff and John agreed that under such conditions, no further action was acceptable.
- At Unit 1 of Site 12, John asked to consider comparing the maximum concentration of MCPP (that was used as the exposure point concentration [EPC]) with a measure of central tendency for MCPP to show the conservatism of the risk calculations and resulting risk values. John said possibly word "because the maximum value from a single sample was used to calculate the risk due to MCPP and because the site is well characterized the HI of 4.6 is probably an over estimate. If a measure of a central tendency instead of a maximum concentration was used to calculate the EPC for MCPP the HI at Unit 1 would be significantly lower." It was agreed that no action would be acceptable for Unit 1 as long as the above additional explanation was provided. Unit 3 will be proposed for further action to protect surface water in Bee Canyon Wash.

BCT MEETING MINUTES (Continued)

- At Site 21 it was agreed that for the catch basin, which has cancer and non-cancer risks, further action should consist of the simplest alternative available. John Scholfield suggested that the catch basin could be removed or cleaned up by some type of routine maintenance activity. Considering the type and size of the problem the BCT agreed that no remedial action was necessary and that a feasibility study should not be conducted for this AOC.
- In addressing the other sites proposed for No Further Action, John Christopher stated that if the HI of an AOC is above 1.0 and it is "elevated due to an inorganic (an inorganic is the main risk driver), he compares the EPC concentration versus the background concentration. If the EPC concentration is less than two times the background he believes that the HI is acceptable. Because cleaning up the soil at a site to less than two times background would probably require removal of the entire site and therefore would be impractical for the concentrations present at the site."
- Jeff and John stated the discussion of the cancer risk at the no further action sites was satisfactory.

After this discussion the BCT agreed to No Further Action at all AOCs at Sites 4, 6, 9, 10, 13, 15, 19, 20, 21, and 22. A suggestion was made that Table ES-2 in the Executive Summary should be expanded to include a column next to the "Recommended Action" that would briefly explain the justification for each recommendation. In addition, Glenn Kistner indicated that the EPA was satisfied with the other responses provided in the Preliminary Responses to EPA Comments document.

COMMUNITY RELATIONS UPDATE

Two Draft Proposed Plan Fact Sheets are presently being prepared one for OU-2A and Site 24 Soil and another for No Further Action - OU-3A Sites and Site 25. They are being prepared using the Proposed Plan Fact Sheet samples provided by the EPA as a guide. Marcia Mingay requested copies of the sample fact sheets. Bob Coleman will mail her copies.

- The fact sheets are tentatively scheduled to be available for Marine Corps/Navy and regulatory agency review on 3/11/97 for OU-2A and Site 24 Soil and 4/14/97 for OU-3A and Site 25.
- When FFA schedule is updated, FFA schedules and ROD Planners (prepared by Bob) will be provided to the BCT to inform members of the key community relations tasks and deadlines that are part of the ROD process.

Joseph Joyce provided the BCT with a status update on Fact Sheet No. 8. This draft fact sheet is presently undergoing Navy internal review. Fact Sheet No. 8 covers the interim action activities at the landfills and provides an update on the UST closure progress at the Station. Joseph said that an overview of the expected community relations activities through the summer still needs to be included in the fact sheet. This information is dependent upon completion of the update of the FFA schedule. When FFA schedule is updated, the draft fact sheet will be completed for the Marine Corps/Navy and regulatory agency review.

BCP SIGNATURES

The BCT members signed the signature page for inclusion in the BCP.

BCT MEETING MINUTES (Continued)

FFA SCHEDULES

The proposed new FFA schedule was discussed. Andy explained the rationale that went into the schedule. Tayseer indicated that his agency saw some difficulties in agreeing to the proposed schedule. It was agreed that the managers at DTSC and EPA need to talk about these issues and that the schedule will be revisited the week of 17th of February.

- Joseph proposed removing the "Long-Term GW Monitoring Plan" from the FFA schedule.
- The group discussed possible timing for preparing an FS for Sites 8, 11, and 12 (Unit 3). It was agreed that the FS for Site 16 should come after the pilot testing is performed.
- Glenn said that perhaps non-time critical removal actions could be considered for OU-3A sites. Joseph asked Glenn to share his experience at Norton regarding this at the next meeting.
- Glenn provided Norton AFB Document Review Summary as an example for the group to consider implementing for El Toro.

FUTURE MEETINGS AND AGENDA TOPICS

1. RAB Meeting March 25th.
2. Next BCT Meeting conference call on the 20 February at 10:00.

Agenda Items as follows:

| | |
|---|------------------------|
| FFA Schedule | A. Piszkin |
| Site 25 Preliminary Comments | A. Piszkin /B. Lindsey |
| Institutional Controls Discussion | G. Kistner |
| Removal Actions: Schedule, Approach, Lessons Learned from Norton | G. Kistner |
| BCP | J. Joyce |



**OHM Remediation
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OHM TRANSMITTAL/DELIVERABLE RECEIPT

CONTRACT N68711-93-D-1459

DOCUMENT CONTROL NO: SW4089

TO: Contracting Officer
Naval Facilities Engineering Command
Southwest Division
Mr. Dave Jespersen, Code 57CS1.DJ
Building 131
1220 Pacific Highway
San Diego, California 92132-5187

Date: 15-Aug-97

D.O.: 70

Location: MCAS EL TORO

FROM: _____
Stewart Bornhoft, Program Manager

Edwin Bond
Ginger James, Contracts Manager

DESCRIPTION Draft Technical Memo, Catch Basin Clean-Out West of IRP Site 21-Materials
OF Management Group, Building 320, dated August 15, 1997.
ENCLOSURE:

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(\$) (Tech)

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